Quality Control

Test for correct pressure

DQA:	$\langle \rangle$	AMIL	Date:	14-	<u>) - /</u>								TART
QA Closed:			Date:	14-	2-3	WORK ORDER NON	-CC	ONFO	·	14/	- ula O ud - u	-d-4	AEROSPACE
QA Closed.	-4	1/2	Date.	11	<u> </u>	· · · · · · · · · · · · · · · · · · ·	_			VV	ork Order up	date only	<u> </u>
Work Ord	Work Order: DISPOSITION								AGAINST	DE	PARTMENT,	/PROCESS	
	Part No. B 113983 Scrap Scrap Use-as-is Suspected Unapproved							Skid-tube Crosstube Water Jet Prod. Eng. Coor. Thermoforming Finishing Rec/Store/Packaging Supplier					Engineering Quality Other
Root	ì	- 17 N-)-QC		-	Desci	ription of work order update		nitial	Action	_	Sign &		
Cause		Date	Step	Qty	2 000.	or non-conformance	i .	ief Eng			Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved		rubile <sup>y</sup>	ł 110	+ 14	by thouse	found at inspation He hable outstein	<b>Q</b> >7	DAS 16 9-89 2042 62/74	inform supplied to have been sens Dant the correl Lother twill be insolvered	lsky		DAS 27	DAS 16
				·			FAI	JLT CAT	TEGORY				
Landi	ng G	iear				General							
	Bending Centre Not Concentric BOM/Route Broken/Damage/I					┝┈	Folio/F Grain Hardwa	Program		Outside Dim Over/Under Part Incorred	tolerance	Pressure/Forced Set-up Temperature/Cure	
	Crimp/Kink/Ripple/Wave Burrs				$\vdash$	l	ion Incomplete/Unqualified	$\vdash$	Part Incorrect Part Lost/Missing		Weld		
	Cuffs Contamination				-	1	tions Incomplete/Unclear	H	Part Moved	_ ĭ —	Wrong Stock Pulled		
	Crushing   Countersink			-	1	gned/off center	$\vdash$	Positioned V		7 2118 212211 21104			
	Heat Treat Cut Too Short			-	Mislabe		$\vdash$	Power Loss/		Other			
	— <del>—</del>			Drawing	П	Misread		_	1====		<u> </u>		
	Marks/Chatter				Drill Holes	$\Box$	Off-set						
					Finish		1	Calibration				······································	
	Wave/Twist in Tube				Fit/Function		Out of Sequence						

Work Order ID 112982 \*112982\* Page 2 February-11-14 11:12:01 AM Item ID: D3552-23 Accept \*N900040100\* Setup Start **Revision ID: Item Name:** Door Prop \*16\* **Start Date:** 2/11/14 **Start Qty:** 16.00 **Cust Item ID:** Req'd Qty: 16.00 Required Date: 2/14/14 \*16\* **Customer:** Reference: Run Process Plan: Approvals: Date: Tooling: Date: Stop QC: Date: \_\_\_\_\_ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Accept Insp. Work Center ID Code Description Number Stamp **Run Hours** Qty **Qty** 130 Identify as per dwg & Stock Location: 57261 0.00 DAS 16 X 28 14-02-27 \*120\* Packaging 0.00 Memo Packaging 140 QC21- Final Inspection - Work Order Release 0.00 \*140\* OC 0.00

Memo

Quality Control

H14-02-28

DQA:			Date:			_							
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE				AEROSPACE
QA Closed:			Date:			<u> </u>				W	ork Order up	odate only	
Work Orde	٠r٠					DISPOSITION	AGAINST DEPARTMENT/PROCESS						
Work Orde	•					Rework	1		Skid-tube Crosstube		1	Water Jet	Engineering
Part N	۱o.					Scrap			Machining Small Fal		Pro	d. Eng. Coor.	Quality
						Use-as-is			noforming Finishin	-	4	re/Packaging	Other
NCR N	۱o.					Suspected Unapproved			Large Fab Composite	·	1	Supplier	
	-												
Root					Desc	ription of work order update		nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
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Handling/Pre													
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	-	Bending				Bend		1	Program	L	Outside Dim	<del> </del>	Pressure/Forced
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		Cracks			$\vdash$	Broken/Damage/Defect	_	Hardwa		$\vdash$	Part Incorred	ļ	Temperature/Cure
	-	Crimp/Kir	nk/Ripple,	/Wave	$\vdash$	Burrs	L	1	ion Incomplete/Unqualified	<u> </u>	Part Lost/Mi	ssing	Weld
	<del>                                     </del>	Cuffs Crushing			$\vdash$	Countarink	_	4	tions Incomplete/Unclear	$\vdash$	Part Moved	L	Wrong Stock Pulled
		Heat Trea	nt			Countersink Cut Too Short	-	Mislabe	gned/off center	-	Positioned V Power Loss/		Other
	$\vdash$	i		Tube	$\vdash$	Drawing	⊢	Misread		<u> </u>	Trower ross)	ouige [	Tottlet
	Inspection Strip in Tube Drawing  Marks/Chatter Drill Holes			$\vdash$	Off-set								
	Turning Sequence Finish			$\vdash$	4	Calibration				7			
	Wave/Twist in Tube					Fit/Function		Out of Sequence					

\*Picklist Print

February-11-14 11:12:00 AM

Page 1

Work Order ID:

112982

Parent Item:

D3552-23

Parent Item Name:

Door Prop

**Start Date: 2/11/14** 

Required Date: 2/14/14

**Start Qty: 16.00** 

Required Qty: 16.00

**Comments:** 

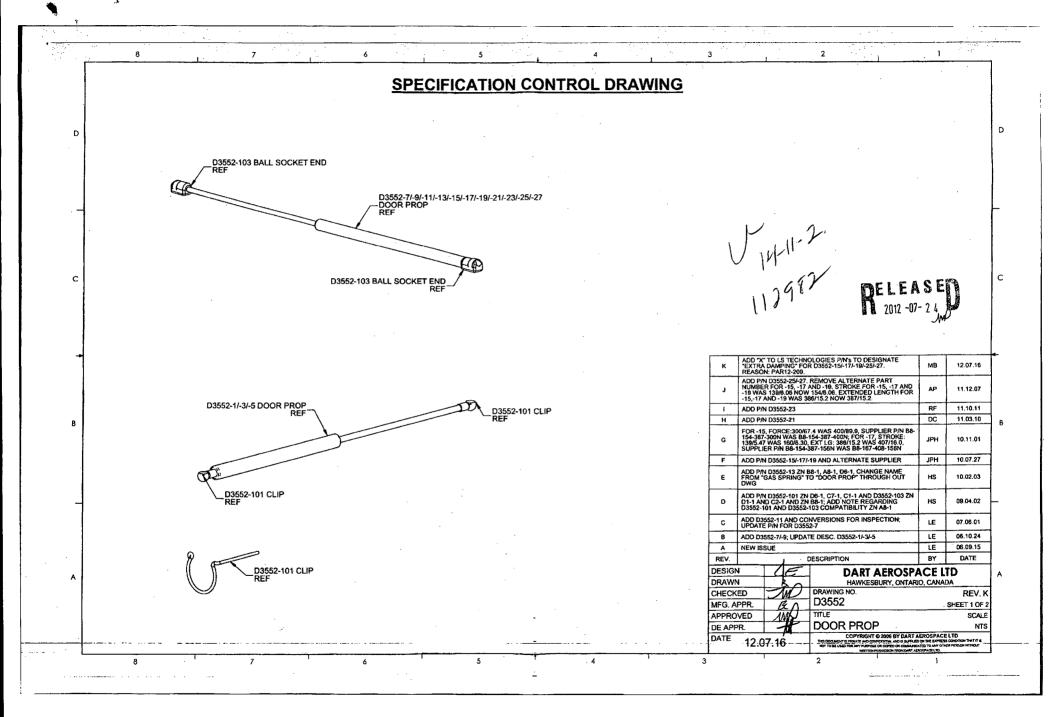
IPP Rev:A 11.04.07 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
B6-190-475-070N		Purchased	No				Each	0.0000		16			

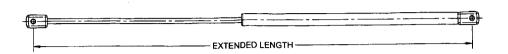
Door Prop

10/4/20 (16)

DQA:			Date:											
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CA Closed.			Dutc.								•		1	
Work Orde	er:		•			DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
	•					Rework			Skid-tube	Crosstube	Water Jet			Engineering
Part N	lo.					Scrap			Machining	Small Fab	Prod. Eng. Coor.			Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Stor	e/Packaging		Other
NCR 1	No.					Suspected Unapproved			Large Fab	Composite	_	Supplier		
Root					Desc	ription of work order update		nitial	Acti	ion	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	iption	Date	Verification	,	QC Inspector
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Transport									i i					
Unapproved														
							FA	ULT CA	TEGORY					
Landi	ng (	Gear				General		_			_	_		
		Bending			L	Bend		Folio/F	Program		Outside Dim	ensions		Pressure/Forced
		Centre No	ot Concen	itric		BOM/Route		Grain		L	Over/Under	tolerance		Set-up
'	L	Cracks				Broken/Damage/Defect		Hardwa	are		Part Incorred	ાં [		Temperature/Cure
	L.	Crimp/Ki	nk/Ripple,	/Wave		Burrs		Inspect	ion Incomplete/Un	qualified	Part Lost/Mi	ssing		Weld
	L	Cuffs				Contamination		Instruct	tions Incomplete/U	nclear	Part Moved			Wrong Stock Pulled
		Crushing				Countersink		Misalig	gned/off center		Positioned V	√rong _		
		Heat Trea	at			Cut Too Short		Mislabe	eled		Power Loss/	Surge		Other
	Inspection Strip in Tube Drawing				Misrea	d								
	Marks/Chatter Drill Holes				Off-set	·								
	Turning Sequence Finish					Out of Calibration								
	Wave/Twist in Tube				Fit/Function		Out of Sequence							



DQA:			Date:		· · · · · · · · · · · · · · · · · · ·	<u>`</u>								TOADT
QA Closed:			Date:			WORK ORDER NON-CONFORMANCE / UPDATE  Work Order update only								
QA Closed:			Date.				_				ork Order up	date only		
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS		
Part N	٠.					Rework Skid-tube Crosstube Water Jer Scrap Machining Small Fab Prod. Eng. Coor Use-as-is Thermoforming Finishing Rec/Store/Packaging				- F		Engineering Quality Other		
NCR N	۰.۱٥					Suspected Unapproved			Large Fab	Composite		Supplier		
Root					Desc	ription of work order update		nitial	Act	tion	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	,	QC Inspector
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Supplier														
Training														
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Landi	ng (	Gear				General		,						
		Bending				Bend		Folio/P	rogram		Outside Dim	ensions		Pressure/Forced
		Centre No	ot Concen	itric		BOM/Route		Grain			Over/Under	tolerance		Set-up
		Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorred	ci .		Temperature/Cure
		Crimp/Kir	nk/Ripple,	/Wave		Burrs		Inspecti	ion Incomplete/Ur	nqualified	Part Lost/Mi	ssing	╗	Weld
		Cuffs				Contamination		Instruct	ions Incomplete/L	Jnclear	Part Moved	Ī		Wrong Stock Pulled
		Crushing				Countersink		Misalig	ned/off center		Positioned V	ا Vrong		
		Heat Trea	at			Cut Too Short		Mislabe			Power Loss/	Surge		Other
	Inspection Strip in Tube Drawing				Misread	i		_	•					
	Marks/Chatter Drill Holes			Г	Off-set			<del></del>						
'	Turning Sequence Finish					Out of Calibration								
	Wave/Twist in Tube				Fit/Function	Г	1	Sequence						



DART PART NUMBER	DESCRIPTION	STROKE (mm/in)	EXTENDED LENGTH (mm/in)	FORCE (N/lb)	END FITTING	MATERIAL	SUPPLIER	SUPPLIER PART NUMBER OR MODE NUMBER
D3552-1	DOOR PROP	220/8.66	530/20.6	70/15.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-220-530-070N
D3552-3	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-200-490-200N
D3552-5	DOOR PROP	175/6.89	430/16.9	150/33.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-175-430-150N
D3552-7	DOOR PROP	220/8.66	530/20.9	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-220-530-070N
D3552-9	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-200-490-200N
D3552-11	DOOR PROP	240/9.45	575/22.6	150/33.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-240-575-150N
D3552-13	DOOR PROP	220/8.66	530/20.9	140/31.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-220-530-140N
D3552-15	DOOR PROP W/EXTRA DAMPING	154/6.06	387/15.2	300/67.4	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-300NX
D3552-17	DOOR PROP W/EXTRA DAMPING	154/6.06	387/15.2	156/35.1	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-156NX
D3552-19	DOOR PROP W/EXTRA DAMPING	154/6.06	387/15.2	60/13.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-060NX
D3552-21	DOOR PROP	167/6.57	410/16.1	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-167-410-070N
D3552-23	DOOR PROP	190/7.48	475/18.7	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-190-475-070N
D3552-25	DOOR PROP W/EXTRA DAMPING	148/5.83	475/18.7	300/67.4	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-148-475-300NX
D3552-27	DOOR PROP W/EXTRA DAMPING	148/5.83	475/18.7	156/35.1	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-148-475-156NX
D3552-101	CLIP	N/A	N/A	N/A	N/A	CARBON STEEL	LS TECHNOLOGIES	C9
D3552-103	BALL SOCKET END	N/A	N/A	N/A	N/A	NYLON	LS TECHNOLOGIES	B10

#### D3552-X DOOR PROP



	1								
DESIGN	LE	DART AEROSPACE LTD							
DRAWN	A	HAWKESBURY, ONTARIO, CANADA							
CHECKED	a	DRAWING NO.	REV. K						
MFG. APPR.		D3552	SHEET 2 OF 2						
APPROVED	-#6	TITLE	SCALE						
DE APPR.	4	DOOR PROP	NTS						
DATE 12.	07.16	COPYRIGHT © 2006 BY DART AEROSPACE LTD  THIS DOCUMENT IS PRIVATE AND CONFERENTIAL AND IS SUPPLED ON THE COPPESS CONSISTION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMPANIETE TO ANY OTHER PRESION WITHOUT							

NOTES:
1) IDENTIFICATION: IDENTIFY PER QSI 044 6.2
2) D3552-101 CLIP IS ONLY COMPATIBLE WITH D3552-11/-3/-5 DOOR PROPS
3) D3552-103 BALL SOCKET END IS ONLY COMPATIBLE WITH D3552-7/-9/-11/-13/-15/-17/-19/-21/-23/-25/-27 DOOR PROPS

DQA:			Date:											$^{\prime\prime}$ AR
						WORK ORDER NON-CONFORMANCE / UPDATE								
QA Closed:			Date:							W	ork Order up	date only		
Work Orde	r:					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
	•					Rework	]	Skid-tube Crosstube			Water Jet			Engineering
Part N	О.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.		Quality
:						Use-as-is		Therr	noforming	Finishing	Rec/Stor	e/Packaging	_	Other
NCR N	lo.				_	Suspected Unapproved	]		Large Fab C	Composite	J	Supplier	Ш	
Root					Desc	ription of work order update		nitial	Action	)	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descripti	ion	Date	Verification		QC Inspector
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Operator	_													
Offset/Setup	$\dashv$													
Process	-										·			
Supplier	$\dashv$								,					_
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Unapproved			1				EAL	III T CA	I TEGORY					
Landin	na (	Goar				General	IA	OLI CA	ILGORI				-	
		Bending			Г	Bend		l <sub>Eolio</sub> /F	Program		Outside Dim	ensions [	$\neg$	Pressure/Forced
		•	ot Concen	itric		BOM/Route		Grain	108.4		Over/Under	- F		Set-up
<u> </u>	_	Cracks				Broken/Damage/Defect		Hardwa	are		Part Incorred	<u> </u>	_	Temperature/Cure
<u> </u>		Crimp/Kii	nk/Ripple.	/Wave		Burrs		-	ion Incomplete/Unqu	alified —	Part Lost/Mi	F		Weld
		Cuffs		,		Contamination		1	tions Incomplete/Uncl	<u> </u>	Part Moved		—∹	Wrong Stock Pulled
	$\overline{}$	Crushing				Countersink	$\vdash$	4	gned/off center	·	Positioned V		لـــــا	
		Heat Trea				Cut Too Short		Mislab	=		Power Loss/			Other
				Drawing		Misrea			٦	~ L				
				Drill Holes		Off-set			-					
	Turning Sequence Finish			<b>-</b>		4	Calibration							
L		1	ist in Tub	e		Fit/Function		Out of	Sequence					



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

### **PURCHASE ORDER**

Purchase Order ID PO23017

Purchase Order Date 2/14/2014 PO Print Date 2/14/2014

Page Number 1 of 1

Order From:

LS TECHNOLOGIES INC. 314 JESSOP AVE SASKATOON, SK S7N 1Y6 CA

VC-LST0001

Ship To: DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

**CANADA** 

**Contact Name** 

**Vendor Phone** 

**Ship To Contact** 

Ship To Phone

306 683 5000

FedEx PI collect

Buyer

Chantal Lavoie

**Customer POID** 

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

**FOB** 

FCA - (Free Carrier)

Ship Via: Ship Acct:

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ CD Taxable Promise Date	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	B6-190-475-070N AS PER DWG D3552 REV. K B112982	Door Prop	2/21/2014 Yes 2/21/2014	16.00 Each	\$32.50	\$520.00
_					Line Total:	\$520.00
2	6/15-164/50-115N	Gas Spring	2/21/2014 Yes 2/21/2014	12.00 Each	\$63.90	\$766.80
	AS PER DWG D2807 REV. E B113107					

Line Total:

\$766.80

PO Total:

\$1,286.80

PO Instructions: Procurement Quality Clauses

A004 faa-pma/tso A005 right of entry

A016 personnel qualification A025 certification of conformance A040 nofication of quality escape

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer. No substitution or deviation without consent.

## LS TECHNOLOGIES INC

314 Jessop Ave Saskatoon , SK S7N 1Y6

Ph# (306) 683-5000

Name / Address	
Dart Aerospace Ltd	
1270 Aberdeen St.	
Hawkesbury, ON K6A 1K7	
W.	

# Packing Slip

P.O. No.	Date	Invoice #
23017	2/18/2014	10812

Ship To	
Main Finished Goods Location	
Dart Aerospace Ltd	
1270 Aberdeen St.	
Hawkesbury, ON K6A 1K7	

the second of the second			
Ship	Via	FOB	
2/18/2014	Fed-Ex	SF	

Qty	Description
16	D3552-23 B112982 Gas Spring
12	D2807-041 B113107 Stainless Gas Spring / S
	Shipping Via FED EX Tracking # 797955485253
The state of the s	
i e	



LS Technologies Inc 314 Jessop Ave Saskatoon, SK, S7N 1Y6 Ph: (306) 683-5000 Fax: (306) 683-6403

### **Certificate of Comformance**

Feb 18, 2014

This is to certify that the parts listed below meets specifications as required by your order.

16 Units: D3552-23 B112982 Gas Spring
12 Units: D2807-041 B113107 Stainless Gas Spring

Country of Manufacture: Canada Date of Manufacture: Jan 2014 This product is ROHS compliant.

Purchase Order # 23017 Inv# 10812

L S Technologies Inc Canada

Nolan Fehr President



# Non-Conformance Report

Monday, February 24, 2014

Details						<u>-</u>	
Raised Date	Status		Owner		1	Number	
2/24/2014	Ope	n	) G	Gregoire, Michael	Ì	NCR14-3553	
Target Date 3/7/2014	Standard					Severity MINOR	
Process		-	-	Audit			
	Quality Inspecti	on					
Raised By Person	R	aised Ag	ainst (Departn	nent or Supplier)	Fau	ult Category	
Boyer, Syl	vain	LS Techno		ologies Inc.		Supplier\Missing Documentation	
Details D3552-23 B112982 F number printed on it	PO# 23017 was	ound at i	nspection that t		by the supp	plier do not have the full Dart par	
Keywords				Product			
	missing part num	ber			D3	3552-23	
Document			· · · · · · · · · · · · · · · · · · ·	Root Cause			
Closed By	Closed Date		Resolution				
Corrective Acti	on						
Target Date 3/7/2014	<b>Owner</b> Do	wning, Eri	сМ	Closed Date	Close	ed By	
Details							
Actions					•		
Number	Owner			Target Date		Completed Date	
Details				Response			
1	Gregoire, Mic	chael		2/28/2014			
in form supplier of the labels with the correct			nd Dart correct				
2	Gregoire, Mic			3/7/2014			
have supplier send Da a corrective action on attach supplier respon	how this will be	nalysis fo prevented	r this NCr and in the future.				

Closed Date	Closed By
Target Date	Completed Date
Response	